UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/127,256	07/31/1998	WILLIAM ELKINS	OR209	9902

7590 09/24/2004

MICHAEL B. EINSCHLAG
25680 Fernhill Drive
Los Altos Hills, CA 94024

EXAMINER	
LEO, LEONARD R	

ART UNIT	PAPER NUMBER
3753	

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/127,256	ELKINS, WILLIAM
	Examiner	Art Unit
	Leonard R. Leo	3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-5,8,9,12,14,17,19,20 and 22-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-5,8,9,12,14,17,19,20 and 22-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments filed April 20, 2004 are deemed to be persuasive. Claims 3-5, 8-9, 12, 14, 17, 19-20 and 22-24 are pending.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 22 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 17 of U.S. Patent No. 6,178,562. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent is narrower in scope than the application claims.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to omit the overlapping bladders, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

Claims 3-5, 8-9, 12, 14, 17, 19-20 and 23-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 17 of U.S. Patent No. 6,178,562 in view of Gammons et al.

The patent claims all the claimed limitations of the application except a multiplicity of points to form a dot matrix along crossing imaginary lines at 90°.

Gammons et al discloses a heat exchange panel comprising first and second layers of flexible material 25, 26 with a border seal 2 and a multiplicity of points to form a dot matrix along crossing imaginary lines at 90° for the purpose of improving turbulence for heat exchange.

Since the patent and Gammons et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Gammons et al would have been recognized in the pertinent art of the patent.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the patent a multiplicity of points to form a dot matrix along crossing imaginary lines at 90° for the purpose of improving turbulence for heat exchange as recognized by Gammons et al.

Regarding claims 4 and 23, Gammons et al discloses inlet and outlet ports 3, 5 and fences 13, 14.

Regarding claims 5, 9, 14 and 19, the patent claims curvilinear ripples having a "length which is considerably shorter than the total length" will "inhibit the formation of eddies" in claims 14-15 and 17. In the combination, it would have been obvious to employ curvilinear ripples having a ripple cycle length substantially shorter than the length f the fence to minimize eddy formation.

Regarding claims 17 and 19, Gammons et al (column 1, lines 11-13) discloses a system comprising a heat transfer device; and pump in combination with a heat exchange panel.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 22 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Molloy.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-4, 8, 12, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gildersleeve et al in view of Molloy, and further in view of Gammons et al.

Gildersleeve et al discloses all the claimed limitations except a border seal having curvilinear ripples and the multiplicity of points forming a dot matrix along crossing imaginary lines at 90°.

Molloy discloses a heat exchange panel comprising first and second layers of flexible material 20, 21 with a border seal 25 having curvilinear ripples for the purpose of improving conformity to the complex shape as recognized by Molloy.

Gammons et al discloses a heat exchange panel comprising first and second layers of flexible material 25, 26 with a border seal 2 and a multiplicity of points to form a dot matrix along crossing imaginary lines at 90° for the purpose of improving turbulence for heat exchange.

Since Gildersleeve et al, Molloy and Gammons et al are all from the same field of endeavor and/or analogous art, the purposes disclosed by Molloy and Gammons et al would have been recognized in the pertinent art of Gildersleeve et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gildersleeve et al the border seal having curvilinear ripples for the purpose of improving conformity to the complex shape as recognized by Molloy, *and* employ in Gildersleeve et al the multiplicity of points forming a dot matrix along crossing imaginary lines at 90° for the purpose of improving turbulence for heat exchange as recognized by Gammons et al.

Response to Arguments

The finality of the previous Office action is withdrawn.

The Examiner agrees with both definitions of "curvilinear" provided by the Board of Appeals and Interferences and Webster's Dictionary. As defined, "curvilinear" consists of curved lines, not straight lines. Molloy discloses a curvilinear border seal.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard R. Leo whose telephone number is 703-308-2611. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Scherbel can be reached on 703-308-1272. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Leonard R. Leo
Primary Examiner
Art Unit 3753

September 22, 2004